

ABSTRACT OF THE DISCLOSURE

A multi-spectral detector for use in a passive /active system and a method for use in identifying an object in a field of view are disclosed. The multi-spectral detection system comprises an optically dispersive element, a detector array, and an integrated circuit. The optically dispersive element is capable of separating received LADAR radiation and radiation received from a scene into a plurality of spectral components and distributing the separated spectral components; and a detector array. The detector array includes a plurality of detectors capable of detecting the LADAR radiation; and a plurality of detectors capable of detecting the spectral components of the scene radiation. The integrated circuit is capable of generating a plurality of electrical signals representative of predetermined characteristics of the detected LADAR radiation and the detected spectral components. The method comprises passively detecting scene radiation employing a detector array; and actively detecting LADAR radiation through the detector array in parallel with passively detecting the scene radiation.